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09/876,198	06/06/2001	Tom McGee	US 010136	9113

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EXAMINER

SHANG, ANNAN Q

ART UNIT	PAPER NUMBER
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2623

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/876,198

Applicant(s)

MCGEE ET AL.

Examiner

Annan Q. Shang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments/amendment filed 11/15/06 have been fully considered but they are not persuasive.

With respect to claims 1-4, 8, 10-14, 18, 20 and 22-25 are rejected under 35 U.S.C. 102(e) as being anticipated by **Alexander et al (6,177,931)**, applicant discusses the prior art of record and argues that, none of the cited section of Alexander et al., "...teach or suggest obtaining a second value representing characteristics data of the at least program at its end time from the at least one program as recited in claim 1..." that "...these sections...teach canceling scheduled recordings , adjusting the recording begin times of scheduled recordings, and indexing recorded programs..." that "...sections teach comparing a title of a program listed in the EPG that is scheduled to be recorded with a title of a telecast program and canceling the recording if the titles do not match..." (see page labeled 8 of 17+ of Applicant's Remarks/Arguments).

In response, Examiner disagrees. Examiner notes applicant's arguments, however, Alexander teaches a Television Receiver (TVR) 10 or 24, which obtains and stores in a RAM or EPG database, data packets of EPG or Schedule information representing characteristics data (program name, channel, date, start time, end time, duration, etc.) of at least one program. TVR-10 or EPG microprocessor monitors the data packets on in real-time or on an ongoing basis and integrates the captured data into the EPG database (col.3, lines 3-20, col.5, lines 5-15, col.19, lines 13-29 and col.33, line 44-65). Alexander further teaches that TVR-10 or EPG microprocessor

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monitors the packets of EPG data received for changes in the schedule information (date, start time/end time, duration, etc.) and upon receiving a packet of scheduling updates (second value representing characteristics data of at least one program), the microprocessor compares these values to determine the appropriate recording duration (or start time/end time) for recording the program and automatically updates the recording list to meet these changes (col.11, line 63-col.12, line 9, line 53-col.13, line 13). When a user selects to record a program(s) (in-progress or scheduled to be broadcast) the EPG microprocessor automatically updates any scheduling changes to record the program(s) and records the program(s) accordingly based on the changes (col.11, line 63-col.12, line 9, line 53-col.13, line 13). The 102(e) rejection is proper, meets all the claim limitation and maintained. In response to applicant's arguments as to claims 8 and 10, Alexander teaches that recording of program(s) can be done using audio content, such as changes in tone, etc, to index or record program(s) accordingly (col.12, lines 30-43). In response to applicant's arguments as to claims 22-25, the EPG microprocessor program upon receiving the data packet as to changes in the scheduling of program(s), compares the characteristics data and determines a TRUE or FALSE logic based on a comparison of the characteristic data related the program to be recorded and updates the changes if necessary. Hence the 102(e) rejection of claims 1-4, 8, 10-14, 18, 20 and 22-25 is proper, meets all the claim limitations, maintained as repeated below.

With respect to claims 5-7, 9, 15-17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Alexander et al (6,177,931)** as applied to claims 1 and 11

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above, and further in view of **Dimitrova et al (6,100,941)**, applicant argues that, "...The Office Action has failed to support an allegation that there is a suggestion or motivation to combine the references..." supports arguments with cited portions of MPEP and argues that the Dimitrova do not make up for deficiencies in Alexander.

In response, Examiner disagrees. Examiner notes applicant's arguments, however, Examiner maintains that, the test for obviousness is not whether the features of a secondary reference may be bodily incorporate into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. In this case Alexander teaches a TV receiver which includes an EPG microprocessor, which monitors changes in scheduling information of the EPG and adjusts the recording list to meet the changes. In the same field of endeavor, Dimitrova discloses a video recording and playback system, which determines when to record program(s) using various detection means to detect the start/end times of programs (col.1, lines 7-10 and col.4, line 53-col.5, line 45). Both reference are in the same field of endeavor, as such combining the teaching of Dimitrova with Alexander would be within the knowledge of one of ordinary skill in the art, and the appropriate motivation was given.

Furthermore it appears Applicant's arguments are directed against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re*

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Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

As discussed above, Alexander teaches all the claimed limitations, but fails to explicitly teach where at least one of the first value and the second value representing characteristics data gathered from the at least one program is signature generated by using a combination of features from a frame of the at least one program, including signatures extracted from DCT and generating characteristics data from the at least one program is a color histogram generated from a frame of at least one program and generating from closed captioning data from the frame of the program. However these deficiencies in Alexander are disclosed in Dimitrova as discussed in the office action below. Hence the 103(a) rejection of claims 5-7, 9, 15-17 and 19 is proper, meets all the claim limitations and maintained.

With respect to claim 21, the amendment to the claims necessitated the new grounds of rejection using Alexander in view of Dimitrova. **This office action is made final.**

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4, 8, 10-14, 18, 20 and 22-25 are rejected under 35

U.S.C. 102(e) as being anticipated by **Alexander et al (6,177,931)**.

As to claim 1, note the **Alexander** reference figures 1-3 and also figs.1-2 of **Yuen et al. WO96/07270**, disclose systems and methods for displaying and recording control interface with TV programs, video, advertising information and program scheduling information and further discloses a method of processing a catalog of electronic programming information including a start time and an end time of the at least one program, the method comprising:

Obtaining (Receiver 'R' 10 'a video input source') from the at least one program a first value (EPG data packet or Schedule data packet) representing characteristics data of the at least one program at the start time (fig.1 and col.2, line 62-col.3, line 20), and

Storing (RAM or Memory of EPG) the first value in the catalog (col.5, lines 5-28 and col.8, lines 19-43); and obtaining from the least one program a second value representing characteristics data of the at least one program at the end time (changed EPG data packet or Schedule data packet (col.11, lines 9-30, line 63-col.12, line 9 and lines 30-43); and

Storing the second value in the catalog; when a user selects the at least one program for future use by a device with a program input (RC-26), copying the first value and the second value to the device (col.11, lines 9-30, line 63-col.12, line 9 and lines 30-43);

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Comparing (Processor) the first value and the second value to corresponding values obtained from the program input to determine a start and stop time for the use (col.11, lines 9-30, line 63-col.12, line 9 and lines 30-43).

As to claim 2, Alexander further discloses where the at least one program is a carried by a video signal source (col.11, lines 9-55).

As to claim 3, Alexander further discloses where the use for the at least one program includes the device displaying the at least one program (col.11, lines 9-28).

As to claim 4, Alexander further discloses where the use for the at least one program includes the device recording (VCR) the at least one program (col.11, lines 9-28).

As to claim 8, Alexander further discloses where at least one of the first value and the second value representing characteristics data gathered from the at least one program is generated from audio portion from one or more frames of the at least one program (col.12, lines 33-43).

As to claim 10, Alexander further discloses where the characteristics data gathered from the at least one program is obtained from low level features (col.12, lines 33-43).

As to claim 11, the claimed "A method of processing a catalog of electronic programming information containing information for at least one program..." is composed of the same structural elements that were discussed with respect to the rejection of claim 1.

Claim 12 is met as previously discussed with respect to claim 2.

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Claim 13 is met as previously discussed with respect to claim 3.

Claim 14 is met as previously discussed with respect to claim 4.

Claim 18 is met as previously discussed with respect to claim 8.

Claim 20 is met as previously discussed with respect to claim 10.

As to claims 22-23, **Alexander** further discloses a system for processing a catalog of electronic programming information, in which the catalog contains information for a program, where a start time and end time of the program is stored, in which the program is represented by characteristic data gathered from the program, the system comprising:

A video signal source of the program (Receiver 10, col.2, line 62-col.3, line 20);
and

A processor operatively coupled to the video signal source, the processor coupled to an electronic programming guide, and coupled to a user selection device, and output means (see figs.1-2 of **Yuen et al. WO96/07270**); the processor configured to:

Obtain a user programming selection from the user selection device (fig.2 and col.3, lines 21-55 and col.10, line 64-col.11, line 28);

Obtain the characteristic data, program channel selection, and the start time and the end time from the catalog (col.11, lines 9-30, line 63-col.12, line 9 and lines 30-43);
and

Monitor the video signal source at time proximal to the start time and the end time, comparing the characteristic data generated from the video signal source; and

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when the characteristic data obtained from the catalog is equivalent to the complimentary characteristic data generated from the video signal source, set the logic output means to TRUE, and stop performing the comparison or otherwise set the logic output means to FALSE and continue performing the comparison on the video signal source (col.11, lines 9-30, line 63-col.12, line 9 and lines 30-43).

As to claims 24-25, Alexander further discloses where the processor is operatively connected to a device (VCR) for further processing the program, where a true value for the logic output means causes the processor to turn on the device to a channel of the program and a false value of the logic output means causes the processor to turn off the device (col.9, line 65-col.10, line 12, col.11, lines 9-30 and line 63-col.12, line 9).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5-7, 9, 15-17, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Alexander et al (6,177,931)** as applied to claims 1 and 11 above, and further in view of **Dimitrova et al (6,100,941)**.

As to claim 5, Alexander further discloses using title of programs, changes in the EPG data packet, etc., to extract schedule information of programs for recording (col.11,

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lines 9-30, line 63-col.12, line 9 and lines 30-43), but fails to explicitly teach where at least one of the first value and the second value representing characteristics data gathered from the at least one program is signature generated by using a combination of features from a frame of the at least one program, including signatures extracted from DCT

However, in the same field of endeavor, **Dimitrova** discloses apparatus for locating a commercial disposed within a video data stream and further teaches characteristics data gathered from signature generated from a combination of features from a frame of the broadcast (col.2, lines 10-64, col.4, line 63-col.5, line 18, line 66-col.6, line 39, col.7, line 58-col.7, line 1+, col.14, lines 29-41 and col.17, line 50-col.18, line 1+).

Hence it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Dimitrova into the system of Alexander in order to detect the begin/end times of a broadcast program via an analysis of various features of the program frames to provide more accurate program detection system.

As to claims 6-7, Alexander further fails to generate characteristics data from the at least one program is a color histogram generated from a frame of at least one program and generating from closed captioning data from the frame of the program.

However, Dimitrova further teaches analysis of a color histogram generated from a program frame and also closed captioning data generated from a program frame, which is used to determine the start/stop time of a program located within a stream (col.2, lines 10-64 and col.18, line 1-35).

Hence it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Dimitrova into the system of Alexander for the same stated advantage of claim 5.

Claim 9 is met as previously discussed with respect to claim 5.

Claim 15 is met as previously discussed with respect to claim 5.

Claims 16-17 are met as previously discussed with respect to claims 6-7.

Claim 19 is met as previously discussed with respect to claim 5.

As to claim 21, **Alexander** discloses in figures 1-3 and also figs.1-2 of **Yuen et al. WO96/07270**, disclose systems and methods for displaying and recording control interface with TV programs, video, advertising information and program scheduling information and further discloses a method of processing a catalog of electronic programming information including a start time and an end time of the at least one program, the method comprising:

Obtaining start and end times (data packets of EPG schedule) and characteristics for a program selected for display from the catalog where the characteristic includes information about the start of the program and the end of the program (col.3, lines 3-20, col.5, lines 5-15, col.19, lines 13-29 and col.33, line 44-65);

Recording an incoming signal (packets of scheduling changes) when the signature for a program (e.g. live sports) matches the signature of the start time within the obtained signature; and terminating an incoming recording of the incoming signal when the signature of the incoming signal matches the signature of the end time within the obtained signature (col.11, line 63-col.12, line 9, line 53-col.13, line 13)

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Alexander, teaches receiving data packets of characteristics data of EPG scheduling, but fails to explicitly teach obtaining a signature of a program.

However, in the same field of endeavor, **Dimitrova** discloses apparatus for locating a commercial programs disposed within a video data stream and further teaches characteristics data gathered from signature generated from a combination of features from a frame of the broadcast (col.2, lines 10-64, col.4, line 63-col.5, line 18, line 66-col.6, line 39, col.7, line 58-col.7, line 1+, col.14, lines 29-41 and col.17, line 50-col.18, line 1+).

Hence it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Dimitrova into the system of Alexander in order to detect the begin/end times of a broadcast program via an analysis of various features of the program frames to provide more accurate program detection system.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wheeler et al (6,675,383) disclose source detection apparatus and method for audience measurement.

Iggulden (6,597,405) discloses method and apparatus for automatically identifying and selectively altering segments of TV broadcast signal in real-time.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Annan Q. Shang** whose telephone number is **571-272-7355**. The examiner can normally be reached on **700am-400pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Christopher S. Kelley** can be reached on **571-272-7331**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

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